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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,880	02/10/2004	Bart Vandewal	1316N-001656	1427
27572 7590 11/06/2007 HARNESSE, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			EXAMINER SY, MARIANO ONG	
			ART UNIT 3683	PAPER NUMBER
			MAIL DATE 11/06/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/775,880	VANDEWAL, BART	
	Examiner	Art Unit	
	Mariano Sy	3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,6,8,10,12 and 20-33 is/are pending in the application.
- 4a) Of the above claim(s) 6,8 and 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,12 and 20-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The amendment filed on September 5, 2007 has been received.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (US 6,667,555) in view of Antonovsky (US 6,612,410) and in view of Williams et al. (US 5,098,119).

Miller et al. disclosed, as shown in fig. 2-5 a pressure tube 12 forming a working chamber; a first piston 18 dividing the working chamber into an upper and a lower working chambers; a first valve 25, 26 for controlling flow of damping fluid through said first piston; and a valve control unit controlling opening and closing of said first valve, see abstract, col. 1, lines 66-67 and col. 2, lines 1-13.

Miller et al. failed to disclose the first valve is an electronic valve and the pressure control unit operating independently from the valve control unit.

Miller et al. disclosed in "Background of the Invention" (see col. 1, lines 24-34) that "Many controllable dampers have an electrical control signal routed to the piston. An example of such damper is disclosed in U.S. Pat. No 6,007,345 to Francis et al.

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Other dampers have a pneumatic control signal routed to the piston. An example of this type of damper is disclosed in U.S. Pat. No. 4,886,466 to Doherty et al.”.

It would have been obvious to one of ordinary skill in the art to utilize the known electronic valve instead pneumatic valve into the damper of Miller et al., as a matter of design choice that has the same function of opening and closing the valve on the piston.

Miller et al. failed to disclose a pressurized gas being the only damping medium disposed within the working chamber; a source for said pressurized gas separate from the working chamber in selective communication with the working chamber; and a pressure control unit in communication with said source for said pressurized gas.

Antonovsky teaches, as shown in the figure 2, the use of a compressor with a source of pressurized gas 90 for continuously controlling pressure of pressurized gas disposed within the working chamber of the pneumatic shock absorber.

It would have been obvious to one of ordinary skill in the art to merely utilize the known control unit with a source of pressurized gas for continuously controlling pressure of pressurized gas disposed within the working chamber of the damper of Miller et al., as taught by Antonovsky, in order to constantly maintain pressurized gas in the damper.

Miller failed to disclose a sensor monitoring an operating condition associated with the damper to control damping characteristics of the damper.

Williams et al. teaches the use of sensors 56, 58 monitoring operating conditions associated with the damper.

It would have been obvious to one of ordinary skill in the art to merely use the known sensor into the damper of Miller et al., as taught by Williams et al., in order to provide a better and comfortable ride.

4. Claims 12, 20, 21, and 26-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller in view of Grundei et al. (US 5,971,117), in view of Antonovsky, and in view of Williams et al. (US 5,098,119).

Miller et al. disclosed, as shown in fig. 2-5 a damper comprising: a pressure tube forming a working chamber; a pressurized gas disposed within the chamber; a first piston dividing the chamber into an upper and lower working chambers; a valve for controlling flow of damping fluid through the piston and a control unit in communication with the valve for controlling opening and closing of the valve.

However Miller et al. failed to disclose the valves are an electronic valve and also failed to disclose the damper further comprising a second piston disposed within the upper working chamber; a first valve for controlling flow of gas through the first piston; a second valve for controlling flow of gas through the second piston and the pressure control unit operating independently from the valve control unit.

Miller et al. disclosed in "Background of the Invention" (see col. 1, lines 24-34) that "Many controllable dampers have an electrical control signal routed to the piston. An example of such damper is disclosed in U.S. Pat. No 6,007,345 to Francis et al. Other dampers have a pneumatic control signal routed to the piston. An example of this type of damper is disclosed in U.S. Pat. No. 4,886,466 to Doherty et al."

It would have been obvious to one of ordinary skill in the art to utilize the known electronic valve instead pneumatic valve into the damper of Miller et al., as a matter of design choice that has the same function of opening and closing the valve on the piston.

Grundei et al. teaches, as shown in fig. 1, the use of two pistons with respective damping valves.

It would have been obvious to one of ordinary skill in the art to utilize the known two pistons with respective damping valves for controlling flow of gas through the piston and a control unit in communication with the valves for controlling opening and closing of the valves on the damper of Miller et al., in view of the teachings of Grundei et al., as a mere duplications of parts and in order to effectively damp vibrations cause by irregular road surfaces.

Antonovsky teaches, as shown in the figure 2, the use of a compressor with a source of pressurized gas 90 for continuously controlling pressure of pressurized gas disposed within the working chamber of the pneumatic shock absorber.

It would have been obvious to one of ordinary skill in the art to merely utilize the known control unit with a source of pressurized gas for continuously controlling pressure of pressurized gas disposed within the working chamber of the damper of Miller et al., as taught by Antonovsky, in order to constantly maintain pressurized gas in the damper.

Miller failed to disclose a sensor monitoring an operating condition associated with the damper to control damping characteristics of the damper.

Williams et al. teaches the use of sensors 56, 58 monitoring operating conditions associated with the damper.

It would have been obvious to one of ordinary skill in the art to merely use the known sensor into the damper of Miller et al., as taught by Williams et al., in order to provide a better and comfortable ride.

Response to Arguments

5. Applicant's arguments with respect to claims 1, 20, and 2 have been considered but are moot in view of the new ground(s) of rejection.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mariano Sy whose telephone number is 571-272-7126.

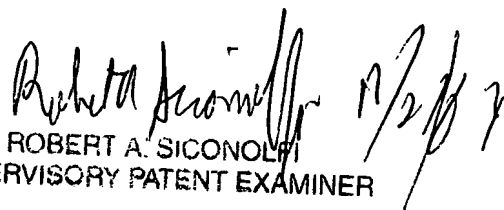
The examiner can normally be reached on Mon.-Fri. from 8:30 A.M. to 2:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi, can be reached on 571-272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 M. Sy

October 26, 2007


ROBERT A. SICONOLFI
SUPERVISORY PATENT EXAMINER